EverExceed ${ }^{\circledR}$
power your applications


PERFORMANCE
AM 12-9.5

## SEALED RECHARGEABLE LEAD ACID BATTERY

## Dimensions and Terminal



| Length:151mm | Width:65mm | Height :94mm |
| :---: | :---: | :---: |
| Total Height :98mm |  |  |



## AINO MICRO Range VRLA

## Innovative Features

- $5 \sim 8$ years design life @ $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ ambient temperature, 80\% remaining capacity;
- Rechargeable VRLA batteries with an electrolyte retained in a glass mat with a very fine glass fiber structure.
- High-Compression Absorbed Glass Mat technology (AGM) for over 99\% recombine action efficiency.
- Proprietary Fixed Orifice Plate Pasting technology applying active materials on both sides of the grid for consistent cell-to-cell performance, higher capacity and uniform grid protection.
- Perfect combination between energy storage performance and reliability;
- Operates at a low internal pressure;
- Low self-discharge rate (less than $3 \% /$ month @ $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$;
- Grid plate construction consisting of a Lead Calcium Tin alloy;
- High impact resistant ABS resin cases and covers;
- Available in V-0 Flame Retardant Material;
- In compliance with IEC 896-2;
- Wide operating temperature range;


## Performance Specifications

| Normal Voltage | 12V |
| :---: | :---: |
| Normal Capacity | 20 hour rate ( 475 mA to 10.5 volts): 9.50 Ah 10 hour rate ( 910 mA to 10.5 volts): 9.10 Ah 5 hour rate (1.66 A to 10.2 volts): 8.32 Ah 1 hour rate (7.13 A to 9.00 volts): 7.13 Ah |
| Internal Resistance | 20.5 milliohms |
| Approximate Weight | 2.70 kg (5.95 lbs) |
| Applicable Operating Temperature Range | $-40^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right)$ to $+70^{\circ} \mathrm{C}\left(+158^{\circ} \mathrm{F}\right)$ |
| Ideal Operating Temperature Range | $+20^{\circ} \mathrm{C}\left(+68^{\circ} \mathrm{F}\right)$ to $+28^{\circ} \mathrm{C}\left(+82.4^{\circ} \mathrm{F}\right)$ |
| Charge Retention (Shelf Life) at $68^{\circ} \mathrm{F}\left(20^{\circ} \mathrm{C}\right)$ | 1 month $97 \%$ <br> 3 month $91 \%$ <br> 6 month $85 \%$ |
| Standby Service | 8 years |
| Cycle Service | $100 \%$ depth of discharge 350 cycles <br> $50 \%$ depth of discharge 650 cycles <br> $30 \%$ depth of discharge 1300 cycles |
| Standard Terminals | Faston Tab No. 250 |



AINO MICRO Range VRLA

## Performance Curves






## Discharge Characteristics

| Constant Current Discharge Characteristics - Amperes @ $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Final VPC | 5 min | 10 min | 15 min | 20 min | 25 min | 30 min | 45 min | 60 min | 90 min | 120min | 180 min | 240min |
| 1.80 | 30.0 | 21.1 | 16.3 | 12.8 | 11.9 | 11.2 | 8.16 | 6.42 | 4.38 | 3.49 | 2.36 | 2.06 |
| 1.75 | 33.4 | 22.7 | 17.1 | 13.2 | 12.2 | 11.4 | 8.32 | 6.51 | 4.45 | 3.57 | 2.40 | 2.09 |
| 1.67 | 37.7 | 24.8 | 18.2 | 13.7 | 13.2 | 11.6 | 8.48 | 6.64 | 4.52 | 3.60 | 2.42 | 2.11 |


| Constant Current Discharge Characteristics - Watts Per Cell @ $20^{\circ} \mathrm{C}\left(68^{\circ} \mathrm{F}\right.$ ) |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Final VPC | 5 min | 10 min | 15 min | 20 min | 25 min | 30 min | 45min | 60 min | 90 min | 120min | 180min | 240min |
| 1.80 | 56.2 | 39.8 | 29.1 | 23.2 | 19.7 | 17.9 | 14.9 | 12.0 | 8.23 | 6.63 | 4.53 | 3.98 |
| 1.75 | 62.6 | 41.6 | 31.0 | 23.9 | 20.5 | 18.3 | 15.2 | 12.2 | 8.39 | 6.73 | 4.57 | 4.04 |
| 1.67 | 70.8 | 44.9 | 34.1 | 25.7 | 21.9 | 19.0 | 15.9 | 12.6 | 8.63 | 6.92 | 4.64 | 4.11 |

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